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FEDERAL COMMUNICATIONS
COMMISSION
OFFICE OF THE
SECRETARY

JUN 16 '95

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Re: ET Docket No 94-124. RM-8308

"Amendment of Parts 2 and 15 of the Commission's Rules to Permit Use of Radio Frequencies Above 40 GHz for New Radio Applications".

In consideration of the Commission's Proposed Rule Making, P-Com would like to make three proposals; one in respect of the choice of a frequency band selected for commercial development; a second proposal is made in respect of how within each frequency band the division of the available spectrum is made; a third proposal is made in respect of the Proposed Technical Standards.

It is noted within Appendix B of the Proposal that the spectrum allocated to Fixed service provisions is 47.2 to 50.2 GHz and is alignment with the International Table Of Frequency Allocations.

Based on the points made in the Commission's Proposed Rule Making, there would appear to be strong interests in the use of 47.2 to 47.4 GHz for unlicensed vehicular radar systems.

In order for these unlicensed vehicular radar systems to coexist with fixed service links operating in the 47.2 to 50.2 GHz frequency band, it would be logical to separate these two entirely different uses of the spectrum by as large a frequency interval as possible.

With this in mind the use of spectrum up to the 50.2 GHz upper limit would seem appropriate. P-Com would like to propose the use of the spectrum from 49.2 to 50.2 GHz for fixed service operation.

Indeed P-Com has developed and is currently supplying to a competitive export market a commercial digital millimetric radio operating on this band. The P-Com Tel-Link 50 carries digital signal over 1-2 km paths offering the user highly reliable low cost equipment.

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P-Com can see many future market opportunities for this product and would urge the Commission to allow this frequency band to be released for use in the U.S. for licensed fixed link services.

With the likely pressures on frequencies around 40 GHz to support new PCS and other short haul services, the use of 50 GHz frequencies will offer relief to the lower frequency congestion when the path length can be served by 50 GHz.

This product is immediately available and can be offered to carry E1 or T1 data rates to 4E1 or 4T1. This will soon be extended to include capacities of 8T1 or 8E1, 16T1 or 16E1 and DS3 or E3.

The attached product data sheets, press releases and Installation Manual provide further insight into the flexibility of this product. The performance specifications enclosed ensure the most efficient use of the spectrum whilst allowing inexpensive methods of implementation that are beneficial to the user.

Secondly P-Com would propose that the sub division of the spectrum allocations be carefully chosen to reflect the proposed usage of the spectrum. Paired blocks with maximum frequency separation are required for Fixed service two way links. The larger the percentage frequency separation the easier the RF filter implementation. This percentage frequency separation at higher frequencies of course requires a greater total amount of spectrum to be made available. For point to multipoint applications, contiguous blocks of spectrum are required to allow the use of multichannel operation within a given service area.

It is not clear in the Proposal what the intended use is of either 37.5-38.5 GHz or 40.5-42.5 GHz. This requires some careful deliberation since the band 38.6-40.0 GHz is assigned for licenced fixed links. Clearly interference from adjacent services can become a planning concern. The band 40.5-42.5 GHz does offer a 500 MHz guard band and coordination with 38.6-40.0 GHz operation is possible.

Thirdly, the Proposed Technical Standards do not align with P-Com's 50 GHz product. Specifically a one foot dish has ≈ 39 dBi gain and in conjunction with +15 dBm of transmit power will result in an EIRP of +24 dBW. These levels of EIRP ensure that high reliability links can be implemented and still allow efficient reuse of the frequencies.

P-Com is a US design and manufacturer of millimetric radio equipment and welcomes this opportunity to participate in the formulation of the future standards for the evolution of the millimetric bands.

John Wood.
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